

Airport Capital Improvement Plan (2014-2024)

Village of Lakeview

Lakeview – Griffith Field

December 6, 2013

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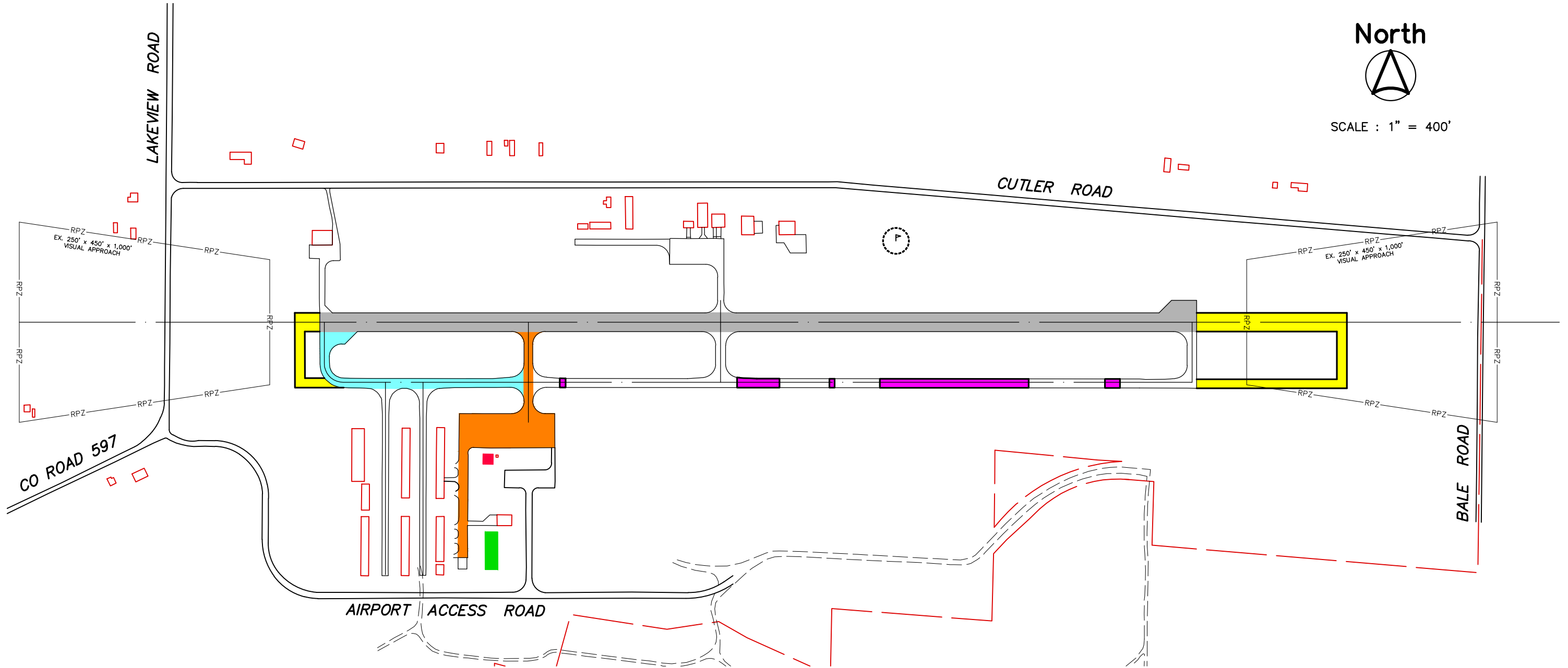
MICHIGAN STATE BLOCK GRANT PROGRAM AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2014 to FY-2023							
Airport Name: Lakeview - Griffith Field						Date prepared: December 6, 2013	
Associated City: Lakeview, Michigan						Prepared By: Village of Lakeview/Prein&Newhof	
Sponsor: Village of Lakeview						Sponsor contact info: james@jamesrfreed.com	
Development Year	Project Description	Federal Entitlements	Federal Apportionment	State	Local	Total	Remarks/Item Justification
2014	Rehabilitate Runway 9/27	\$393,000	\$201,000	\$33,000	\$33,000	\$660,000	Existing pavement will be removed and replaced to improve runway surface conditions. Runway was paved in 1991 and is showing signs of significant distress. Pavement will be pulverized and overlaid. The PCI rating was 78 in 2010, but was rated at 46 in 2013.
2014	Rehabilitate Taxiway (5 Sections of Taxiway A east end)			\$130,500	\$14,500	\$145,000	The existing eastern portion of the taxiway has severe settlement, heaving and ride quality issues. Portions of the taxiway will be repaired. (See attached memo for additional details) The PCI is due to be updated in Fall 2013.
2015	Rehabilitate Terminal Apron	\$150,000	\$35,760	\$10,320	\$10,320	\$206,400	The existing apron is over 20 years old and show signs of distress. Pavement will be pulverized, graded, compated and repaved. PCI rating was 85 in 2010.
2016	No Project (Carryover)						
2017	Construct 6-Unit Tee Hangar	\$223,650		\$12,425	\$12,425	\$248,500	The additional hangers will provide revenue for the airport. Existing buildings have been a source of local funding for future projects. There is an existing list of tenants looking for hangar space on the airport. The hangars will be shown on the 2011 ALP update.

Development Year	Project Description	Federal Entitlements	Federal Apportionment	State	Local	Total	Remarks/Item Justification
2019	EA for Runway Extension	\$49,500		\$2,750	\$2,750	\$55,000	EA needed to study runway extension project. A user study will be completed prior to the EA. The user study will be a local only cost that will be reimbursed if the study shows that the extension is justified.
2020	Land Acquisition for Runway Extension	\$85,500		\$4,750	\$4,750	\$95,000	Land Acquisition needed to clear approaches for runway extension.
2021	Design for Runway Extension	\$45,000		\$2,500	\$2,500	\$50,000	Design of runway extension. Justification for runway extension will be noted in ALP and based on a user survey.
2022	700' Runway Extension (4,200' Total)	\$496,350	\$191,700	\$38,225	\$38,225	\$764,500	Proposed extension of runway 9/27 to a full 4,200 feet to accommodate the anticipated increase in turboprop aircraft based at the airport. Several crop dusting operations are based at this airport. Newer agricultural aircraft are turboprops which carry significantly payloads and require more operational runway length.
2023	Fuel Farm (100 LL)	\$149,850		\$8,325	\$8,325	\$166,500	Existing Fuel Farm has limited capacity and does not provide self service operations. Project is to replace the existing above ground tank system with a standard above ground aviation fuel farm. A card reader will be installed to make it easier for pilots to obtain fuel when staff is not present.
2024	Rehabilitate Taxiway A (west end)	\$299,250		\$15,750	\$15,750	\$315,000	Rehabilitate 20 year old pavement








*Proposed airport development must be shown on current FAA-approved ALP prior to funding project.

**In accordance with FAA Order 5100.39A, Appendix 6 - Fields should be completed
(Refer to Airport Code spreadsheet provided on MDOT Aeronautics website under Block Grant Program for specific airport code)

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L E G E N D

	2014 RUNWAY REHAB.		2021 700' RUNWAY EXTENSION
	2014 TAXIWAY RECONSTRUCT		2022 FUEL FARM UPGRADE
	2015 TERMINAL APRON REHAB		2024 TAXIWAY REHAB (WEST)
	2017 6-UNIT TEE HANGAR		

LAKEVIEW-GRIFFITH FIELD
LAKEVIEW, MICHIGAN
2014-2024 ACIP PROGRAM
Prein&Newhof

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2014A Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Rehabilitate Runway 9/27

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price*	Amount
Mobilization and General Conditions	1	LS	\$32,691.00	\$32,691
Safety and Security	1	LS	\$5,000.00	\$5,000
Permits	1000	DLR	\$1.00	\$1,000
Remove and Stockpile Pulverized Material	1970	CYD	\$4.00	\$7,880
Fine Grade & Compact Aggregate Base Course/Pulverized Bituminous	32100	SYD	\$1.00	\$32,100
Soil Erosion and Sedimentation Control	1	LS	\$2,000.00	\$2,000
Sawing Bituminous Pavement, Specified Dimensions	200	LFT	\$5.00	\$1,000
Pulverize Bituminous Pavement, Less Than 6" Thickness	32100	SYD	\$0.70	\$22,470
3" Bituminous Aggregate Surface Course, 20AAX Composition	5530	TON	\$85.00	\$470,050
Bituminous Tack Coat, Specified Emulsified Asphalt	3210	GAL	\$1.50	\$4,815
Airport Pavement Marking, Solid, White, With Reflective Beads	14275	SFT	\$0.30	\$4,283
Airport Pavement Marking, Solid, Yellow, With Reflective Beads	2755	SFT	\$0.35	\$964
Airport Pavement Marking, 1/2 Rate, Solid, White	14275	SFT	\$0.30	\$4,283
Airport Pavement Marking, 1/2 Rate, Solid, Yellow	2755	SFT	\$0.35	\$964
Misc. Shoulder Restoration	7400	LFT	\$2.50	\$18,500

Construction Total = \$608,000

Engineering = \$52,000

Total = \$660,000

MICHIGAN DEPARTMENT OF TRANSPORTATION
Office of Aeronautics - Airports Division

Conceptual Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Rehabilitate Taxiway (5 Sections of Taxiway A east end)

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Mobilization & General Conditions	1	LSUM	\$15,750.00	\$15,750
Safety & Secuirty	1	LSUM	\$1,500.00	\$1,500
Pulverize Bituminous Pavement, Less Than 6" Thickness	3,400	SYD	\$0.70	\$2,380
Unclassified Excavation	2,300	CYD	\$5.00	\$11,500
12" Subbase	1,400	CYD	\$18.00	\$25,200
6" Place and Compact Pulverized Bituminous Pavement	570	CYD	\$13.00	\$7,410
3" Bituminous Aggregate Surface Course, 20AAX Composition	660	TON	\$85.00	\$56,100
4" Underdrain	725	LFT	\$8.00	\$5,800
4" Underdrain Outlet	1	EACH	\$350.00	\$350
Airport Pavement Marking, Solid, Yellow, With Reflective Beads	2,610	SFT	\$1.00	\$2,610
Sawcut Pavement	350	LFT	\$4.00	\$1,400
Turfing With Standard Mixture B	1.0	ACRE	\$1,000	\$1,000
Wood Fiber Mulch	1.0	ACRE	\$1,000	\$1,000

Construction Total = \$132,000

Engineering (CA) = \$13,000

Total = \$145,000

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2015 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Rehabilitate Terminal Apron

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price*	Amount
Mobilization and General Conditions	1	LS	\$20,000.00	\$20,000
Safety and Security	1	LS	\$5,000.00	\$5,000
Permits	1000	DLR	\$1.00	\$1,000
Remove and Stockpile Pulverized Material	700	CYD	\$4.00	\$2,800
Fine Grade & Compact Aggregate Base Course/Pulverized Bituminous Pavement	8,500	SYD	\$1.00	\$8,500
Soil Erosion and Sedimentation Control	1	LS	\$2,000.00	\$2,000
Sawing Bituminous Pavement, Specified Dimensions	200	LFT	\$5.00	\$1,000
Pulverize Bituminous Pavement, Less Than 6" Thickness	8,500	SYD	\$0.70	\$5,950
3" Bituminous Aggregate Surface Course, 20AAX Composition	1,400	TON	\$85.00	\$119,000
Bituminous Tack Coat, Specified Emulsified Asphalt	1000	GAL	\$1.50	\$1,500
Airport Pavement Marking, Solid, Yellow, With Reflective Beads	3,000	SFT	\$0.30	\$900
Pipe Underdrain 6", Type as Specified	700	LFT	\$5.00	\$3,500
Turfing With Standard Mixture B	1.0	ACRE	\$1,000	\$1,000
Topsoiling From Off-Site, Material Furnished By Contractor	525	CYD	\$10	\$5,250
Wood Fiber Mulch	1.0	ACRE	\$1,000	\$1,000

Construction Total = \$178,400

Engineering = \$28,000

Total = \$206,400

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2017 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Construct 6-Unit Tee Hangar

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Mobilization & General Conditions	1	LSUM	\$15,000.00	\$15,000
Pre-Manufactured Tee Hangar	5,000	SFT	\$28	\$140,000
Concrete Floor	5,000	SFT	\$6	\$30,000
Electrical	1	LSUM	\$25,000	\$25,000
Unclassified Excavation	200	CYD	\$12.50	\$2,500
Aggregate Base	50	CYD	\$30	\$1,500
Bituminous Patching, As Specified	50	TON	\$100	\$5,000
Restoration	1	LSUM	\$1,500	\$1,500

Construction Total = \$220,500
Engineering = \$28,000
Total = \$248,500

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2018 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Land Acquisition

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Parcel 004-006-009-00	1	LSUM	\$5,000	\$5,000
Parcel 004-010-001-00	1	LSUM	\$71,000	\$71,000

Construction Total = \$76,000

Land Consultant = \$19,000

Total = \$95,000

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2020 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: 700' Runway Extension (4,200' Total)

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Mobilization and General Conditions	1	LSUM	\$84,000	\$84,000
Runway End Identifier Light System (REIL), L849	1	SET	\$15,000	\$15,000
Precision Approach Path Indicator (PAPI), 4 Box, Installed	1	SET	\$20,000	\$20,000
Underground Cable, 1/C, #8, 5000V, L824, Type C, in Trench or Duct	1,600	LFT	\$1.00	\$1,600
Bare Counterpoise Wire, #6, Solid, in Trench or Duct	1,600	LFT	\$1.00	\$1,600
Underground Cable, 1/C, #6, 600V, XHHW, Green Insulated Ground, in Trench or Duct	1,600	LFT	\$1.50	\$2,400
Medium Intensity Edge Light, L861, (MIRL/MITL), 30" High, 6.6A, Stake Mount, Complete	30	EACH	\$500	\$15,000
Guidance Sign, Double-Faced, Type L858R	4	EACH	\$4,000	\$16,000
Unclassified Excavation	16,600	CYD	\$5	\$83,000
Subbase	3,600	CYD	\$12	\$43,200
Aggregate Base Course, Material as Specified, Compacted InPlace	2,700	CYD	\$30	\$81,000

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2020 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: 700' Runway Extension (4,200' Total)

Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Bituminous Aggregate Surface Course, 20AAX Composition	1,900	TON	\$85	\$161,500
Airport Pavement Marking, Solid, White, With Reflective Beads	15,000	SFT	\$0.25	\$3,750
Airport Pavement Marking, Solid, Yellow, With Reflective Beads	5,000	SFT	\$0.25	\$1,250
Concrete Culvert & Sewer Pipe 12", Reinforced, C76, Class IV	2,400	LFT	\$25.00	\$60,000
Precast Concrete End Section For 12" Pipe	4	EACH	\$750	\$3,000
Catch Basin 4' Diameter, Type 2, Through 8' Depth	4	EACH	\$1,500	\$6,000
Turfing With Standard Mixture B	9	ACRE	\$600	\$5,400
Topsoiling From Off-Site, Material Furnished By Contractor	4,800	CYD	\$12	\$57,600
Wood Fiber Mulch	9	ACRE	\$800	\$7,200

Construction Total = \$668,500
Construction Engineering = \$96,000
Total = \$764,500

MICHIGAN DEPARTMENT OF TRANSPORTATION
Bureau of Aeronautics - Airports Division

2021 Cost Estimate

Airport: Lakeview - Griffith Field

Development Item: Fuel Farm (100LL)

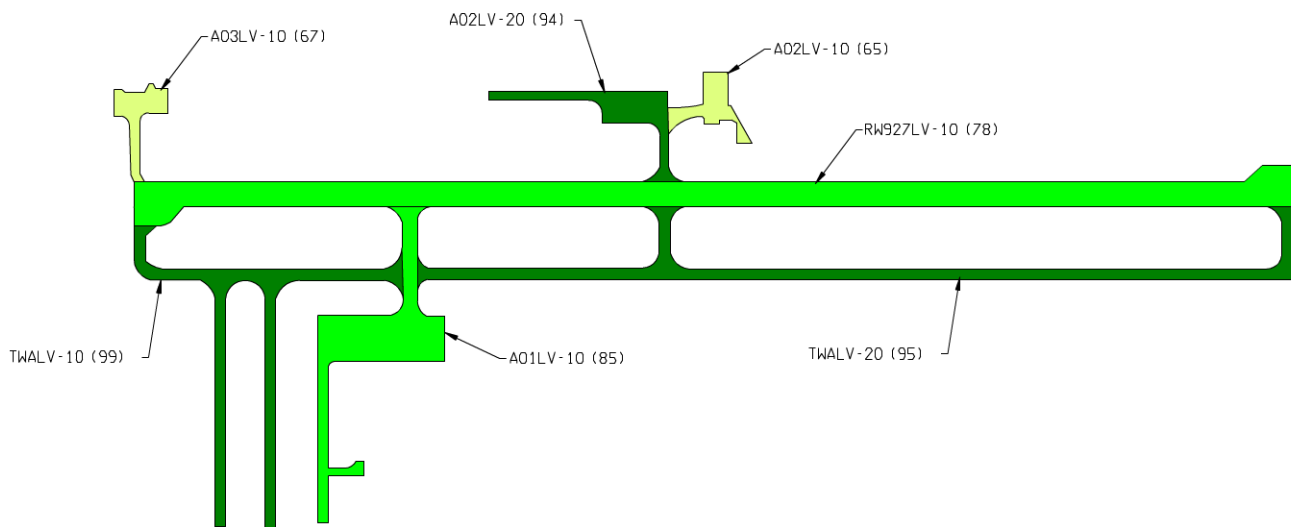
Prepared By: Prein&Newhof

Work Item Description	Estimated Quantity	Unit	Estimated Unit Price	Amount
Mobilization and General Conditions	1	LSUM	\$8,800	\$8,800
Aviation Fuel Tank including appurtenances	1	EACH	\$65,000	\$65,000
Fuel Dispensors, Cabinets, Pumps and accessories	1	EACH	\$30,000	\$30,000
Fuel Piping	50	LFT	\$120	\$6,000
Self Serve Fuel System (Credit Card reader)	1	EACH	\$14,500	\$14,500
Alarm and Emergency Stop System	1	EACH	\$15,500	\$15,500
Site Work	1	LSUM	\$5,000	\$5,000

Construction Total = \$144,800

Engineering = \$21,700

Total = \$166,500



86-100

71-85

56-70

41-55

26-40

11-25

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